

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010)	MB Docket No. 11-154
)	
And Related Matter of)	
)	
Implementation of the Child Safe Viewing Act; Examination of Parental Control Technologies for Video or Audio Programming)	MB Docket No. 09-26
)	
And Related Matter of)	
)	
Empowering Parents and Protecting Children in an Evolving Media Landscape)	MB Docket No. 09-194
)	

REPLY COMMENTS OF TVGUARDIAN, LLC

TVGuardian, LLC submits these reply comments in response to comments filed on the Federal Communications Commission’s Notice in the matter of the 21st Century Communications Video Accessibility Act (“CVAA”) and related other matters. The comments of record from the various Video Programming Owners (“VPOs”), Video Programming Distributors and Video Programming Providers (“VPDs/VPPs”) on this matter all narrowly focus their recommendations to only the CVAA, and fail to consider how changes in closed captioning may violate Congress’ intent in past legislation. We implore the Commission to look beyond the CVAA as a single piece of legislation and consider how rulemaking for this Act affects other related prior legislation. To be more specific, without careful consideration of each of the following three pieces of legislation together, the Commission could effectively violate Congress’ intent defined in prior legislation:

- **The Telecommunications Act of 1996** established rules for both closed-captions and parental controls for TV programming. Congress instructed the Commission, and gave it authority to adopt new parental control advancements in the future as new video technology is developed (*See* Section 551).

- **The Child Safe Viewing Act of 2007** instructed the Commission to consider advanced parental control technology that “can filter language based upon information in closed captioning.” The intent of this Act was to provide advanced parental controls for TV programming to the public beyond the V-chip type blocking technology, as Congress, in the 1996 Telecom Act, anticipated being needed for new video developments. Congress recognized that advanced parental controls for TV programming would likely require the use of a data infrastructure in order to identify potentially offensive content. Congress also recognized that advanced foul language filtering technology that uses the existing closed captioning data infrastructure would be an easy to implement and cost effective advancement in parental controls; one that’s also been proven to work in the real-world with proven demand in the marketplace.
- **The CCVA** is legislation designed to adapt the closed captions required under the Telecommunications Act of 1996 to new developments in video technology.

Congress has expressed its desire for rules that allow the public easily accessible and affordable use of advanced parental controls for new video technology beyond the 1996 V-chip type locking and blocking technology. Without the cooperation of VPOs and VPDs/VPPs, whether through FCC rules or voluntarily, the marketplace cannot provide the public advancements in advanced parental controls for TV programming. Why? VPOs and VPDs/VPPs control the public’s access to TV video programming along with any associated data infrastructure attached to it, and advanced parental controls for TV programming require an associated data infrastructure in order to identify potentially offensive content.

In the Child Safe Viewing Act, Congress singled out foul language filtering technology that utilizes closed captioning. Why? Congress recognized foul language filtering technology as the only advanced parental control for TV programming that not only works in theory, but has been proven to work in the real-world, since it utilizes the only data infrastructure that is both already attached to the video and required by law. All other advanced parental controls for TV programming, presented through comments of record on MB. Docket No. 09-26 and MB. Docket 09-194 regarding the Child Safe Viewing Act, only work in the lab; they all require a new data infrastructure in order to work in the real-world. Therefore, VPOs and VPDs/VPPs must provide third-party software and device developers real-time access to closed caption data with the same accuracy and timing that’s available to the

VPDs/VPPs; otherwise, the marketplace cannot respond to the public's demand for advanced parental controls.

Over the past 14 years, millions of American families have benefitted from foul language filtering technology, but changes over the past few years in the way VPOs, VPDs/VPPs deliver closed captions have already made foul language filtering devices inoperable in many American households, and threaten to make this valuable tool for families obsolete in the near future. This technology has been successful in the marketplace because it uses the existing closed caption data infrastructure to detect foul language, and based on the viewer selected tolerance filter setting, mutes the offensive words and phrases. During the mute, foul language filtering technology can even pop up a profanity-free version of the closed captioning. For example, in the strict filter setting a phrase like "Move your ass!" would be muted and "Move your tail!" would be displayed during the mute. Parents can even set it to mute sexual words/phrases, racial slurs/phrases, and hate words/phrases.

The Commission has a responsibility to honor Congress' expressed intent in all three pieces of legislation. If the Commission makes rules that do not give third-party devices and software applications access to the closed-captions in real-time with the same timing, quality and accuracy that exist on the original video content from the VPOs, the Commission will effectively violate the intentions of Congress in the previous legislation by making foul language filtering technology (the only working and proven advance parental control for TV video available to America's families) obsolete, thereby, leaving the public with only one option for TV video parental controls; the same V-chip type locking and blocking technology provided by VPDs/VPPs that Congress had instructed the Commission in previous legislation (both the Telecom Act of 1996 and Child Safe Viewing Act of 2007) to move beyond.

TVGuardian would also like to acknowledge its support of the joint comments filed in this matter by the Consumer Groups , i.e. Telecommunications for the Deaf and Hard of Hearing, Inc., the National Association of the Deaf, and others (*See* <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021715183>). Families that desire foul language filtering technology and individuals who are deaf or hard-of-hearing all require accurate, uncensored and audio synchronized closed captioning for non-live programming for as much video content as possible, with the closed captioning being accessible by consumers and third-party software and device developers while using the various devices capable of playing video; whether delivered on the Internet, cable TV, satellite TV or broadcast over-the-air.

I. WITHOUT ACCESS TO CLOSED CAPTION DATA BY THIRD PARTY DEVICES AND SOFTWARE, PAST LEGISLATION IS VIOLATED

Congress' intent was clear in related past legislation. In both the Telecommunications Act of 1996 and the Child Safe Viewing Act of 2007, Congress expressed a desire for the Commission to guarantee the public's access to advanced parental controls applicable for new video developments. How the Commission makes rules on the CVAA will determine if advanced parental controls (beyond the 1996 V-chip type locking and blocking) for Internet video are even possible in the marketplace.

II. THE WORDS OF VPOs AND VPDs/VPPs ARGUE AGAINST A MANDATE OF FOUL LANGUAGE FILTERING TECHNOLOGY (OR ANY OTHER ADVANCED PARENTAL CONTROL), BUT THEIR ACTIONS DEMONSTRATE WHY A MANDATE MAY BE THE ONLY VIABLE OPTION.

- A. In the VPOs and VPDs/VPPs comments of record they argue no mandate for advanced parental controls is needed because the marketplace produces advanced parental controls, specifically foul language filtering technology (*See* Comments of THE NATIONAL ASSOCIATION OF BROADCASTERS, THE NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION, AND THE MOTION PICTURE ASSOCIATION OF AMERICA, INC. <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520216897> at pg 15; and Consumer Electronics Association <http://fjallfoss.fcc.gov/ecfs/document/view?id=6520216902> at 7)
- B. Although the VPOs and VPDs/VPPs may say the marketplace should and will provide advanced parental controls, their actions over the past few years actually: 1) prevent the marketplace from delivering an affordable and reliable advanced parental control for HD television to the public, 2) prevent the marketplace from delivering any advanced parental control for Internet video, and 3) are headed down the path of making all third-party advanced parental controls for television video content obsolete; thereby, giving the public only one choice for parental controls, the locking and blocking V-chip type technology directly provided by the VPDs/VPPs – basically, an automated ON/OFF switch.
- C. CVAA comments of record from the various VPOs and VPDs/VPPs demonstrate their preference to use the rendering of closed captions on Internet video as an exception to the pass through rule, and do not suggest giving third-party devices and software consistent access to accurate and timely closed caption data in real-time.

- D. Prior to the Digital TV Transition, the Line 21 closed captions included by the VPOs and passed through by the VPDs/VPPs were very accurate and consistently synchronized with the audio during non-live TV programming using the pop-on closed captioning method. This data was so accurate and timed so well that foul language filtering technology would mute foul language at an accuracy rate of close to 100%.
- E. Since the Digital TV transition, there has been an emergence of closed caption rendering, and many VPDs/VPPs have become careless on their quality control for HD cable and satellite boxes as it pertains to Line 21 pass through closed captions.
- F. Many HD cable and satellite boxes from VPDs/VPPs in the market today do not consistently pass through accurate and timely closed captions data to external decoders as it exist on the original video content from the VPOs, in violation of the rules (i.e., the boxes' rendered closed captions feature displays the closed captions with the same accuracy and timing as it is provided by the VPOs, but the Line 21 closed captioning passed through is often delayed with missing characters). This must be corrected.
- G. VPDs/VPPs must understand that just because they provide accurate rendered closed captions this does not permit them to ignore the quality, accuracy and timing of passed through closed captions. They must be held accountable.
- H. VPOs should also be held accountable to provide accurate, uncensored and audio synchronized closed captioning on non-live programming. Although most closed captioning from the VPOs is very accurate, occasionally they get careless on a particular TV show or movie, and are faced with no consequences.
- I. When the VPDs/VPPs are the only parties with access to the closed caption data in an accurate and timely manner, the marketplace cannot provide an alternative option to the public for TV video parental controls. Recent actions of VPDs/VPPs will soon make the market proven foul language filtering advanced parental control technology obsolete as an external device.
- J. Without either the voluntary or mandated cooperation of VPDs/VPPs to either provide third-party software and device developers access to the needed data, or embed foul language filtering technology into their Internet video player software (Netflix, Hulu, abc.com, nbc.com, Vudu, etc.), TVs, cable boxes, satellite boxes and other such devices; the public cannot be guaranteed easily accessible, reliable and affordable advance parental controls as Congress intended.

- K. Foul language filtering technology is the only advanced parental control technology for TV programming with proven demand in the marketplace that has been proven to work in the real-world with existing video content. It works with any non-live closed captioned video.
- L. Implementing foul language filtering technology into Internet player software and video playing devices is not a burdensome or costly project for VPDs/VPPs or TV manufacturers. It has successfully been embedded in HD satellite boxes for testing in only a matter of hours. It's a very cost effective software technology that may be embedded into existing devices, with no hardware costs.
- M. Foul language filtering technology becomes public domain when the associated patents expire in 2017.

III. THE CLOSED CAPTION DATA PASS THROUGH REQUIREMENT IS NOT WAIVED WHEN CLOSED CAPTIONS ARE RENDERED

- A. The Commission NPRM asked for comments regarding rule changes resulting from the “rendering or pass through” language of the CVAA. This language can only be interpreted to mean VPDs/VPPs must always pass through the closed caption data, but they can also render closed captions simultaneously; to rule otherwise would violate Congress’ expressed intentions in other related legislation.
- B. Foul language filtering devices have already become inoperable when used with many HD cable/satellite box models due to VPDs/VPPs failure to pass through accurate and timely closed captions, as it exist on the original video content from the VPOs. Due to this carelessness, approximately 20-25% of the existing households using foul language filtering devices no longer have use of their purchase, and 20-25% of new purchasers cannot get it to work with their VPDs/VPPs provided boxes, and consequently return their purchase . Antenna users cannot use foul language filter devices either unless it’s connected between an external ATSC tuner and the HD-TV. Therefore, many of the American families that can actually afford this valuable tool for families cannot get it to work due primarily to design flaws in the execution of pass through closed captions by the VPDs/VPPs.

- C. VPDs/VPPs may attempt to argue that closed captions are passed through from their boxes on the component video (analog), and HDMI does not support closed caption pass through. We all know two wrongs do not make a right:
1. HDMI is in violation of the closed caption data pass through rule.
 2. Many of the HD box models from VPDs/VPPs currently in the market fail to pass through closed caption data on the component video *with the original closed captioning data intact in a format that can be recovered and displayed by decoders meeting the standards of part 15*. These HD box models have a careless Line 21 closed caption pass through functionality that delivers delayed and often garbled closed captions with missing characters to the external decoding device; sometimes Line 21 data stops being passed through altogether (specific examples of each claim are available upon request). These careless design flaws make inoperable any connected analog video devices, and devices such as TVGuardian HD (*See <http://www.tvguardian.com>*) that utilize the Line 21 component video as a workaround to gain access to the closed captions in the absence of pass through closed captioning on HDMI connections.
- D. VPDs/VPPs have attempted to circumvent the pass through closed caption data requirement in violation of the Telecommunications Act of 1996 on many HD boxes by rendering closed captions. FCC Rule 47 CFR §79.1(c) reads, “*Obligation to pass through captions of already captioned programs. All video programming distributors shall deliver all programming received from the video programming owner or other origination source containing closed captioning to receiving television households with the original closed captioning data intact in a format that can be recovered and displayed by decoders meeting the standards of part 15 of this chapter unless such programming is recaptioned or the captions are reformatted by the programming distributor.*”
- E. The Commission provides the following interpretation of this requirement in its March 31, 1999 Report No. CS 99-6, when it stated, “*This ‘pass through’ rule requires that a program delivered to the video programming distributor with closed captions must be transmitted to viewers with the original closed captions fully intact (unless the programming is edited and the closed captions would have to be reformatted). Any loss of captioning prior to the end of the program or scrambling of captions would be a*

violation of this rule. Under the ‘pass through’ rule, television viewers should expect captions to be available throughout the entire program. Viewers also should expect the captions to be readable. This means that there should be captions from the beginning to the end of the program.” (See http://transition.fcc.gov/ftp/Bureaus/Cable/News_Releases/1999/nrcb9006.html)

- F. VPDs/VPPs have twisted the meaning of the words, “*unless such programming is recaptioned or the captions are reformatted by the programming distributor,*” to allow them an exemption from the pass through rule when closed captions are rendered from within their cable boxes or satellite boxes. This exception was only intended to have the narrow application of “*unless the programming is edited and the closed captions would have to be reformatted.*”
- G. TVGuardian, LLC generally agrees with the comments of Google regarding a possible method to satisfy the pass through rule for Internet video, when Google asks for VPOs to create caption files with open, publicly specified formats, and requiring hardware and device manufacturers to provide application program interfaces (“APIs”) that meet the Commission’s functional requirements for closed captioning (See <http://fallfoss.fcc.gov/ecfs/document/view?id=7021715116> at 3). TVGuardian, however, wants to stress the importance of third-parties having access to the closed caption data through APIs during playback from the VPDs/VPPs software and/or device in real-time with the same accuracy and timing as it exists on the original content from the VPOs.

IV. THE COMMISSION SHOULD MAKE RULES WHICH APPLY THE TRUE INTENTIONS OF CONGRESS FOUND IN THE COMBINATION OF THREE RELATED PIECES OF LEGISLATION: THE TELECOMMUNICATIONS ACT OF 1996, THE CHILD SAFE VIEWING ACT OF 2007 AND THE CVAA.

- A. Congress’ true intent of these pieces of legislation is to provide both closed captions and advanced parental controls for TV programming to the public for past, present and future video technologies.
- B. Through these three pieces of legislation, Congress expressed its true intent of wanting both closed captions and advanced parental controls (beyond the 1996 type V-chip locking and blocking technology) for TV programming to be easily accessible and free to the public:

1. Congress' intent is for both closed captions and advanced parental controls to be included as part of video viewing devices and video software, rather than requiring the public to purchase a separate stand-alone device in order to gain access to closed captions and/or advanced parental controls.
 2. It was not Congress' intent to give the public only the option of purchasing an expensive stand-alone foul language filtering device in order to gain access to this technology. Such a device for HD TV must duplicate the HDMI inputs and outputs, and other hardware components already included in the video devices. This duplication of hardware components results in a stand-alone device costing families around \$200 per TV in the household. Most families have 2 or more TVs. The cost of these foul language filtering devices alone denies access to it for far too many American families.
- C. The Commission should follow through on Congress' intentions and make rules requiring the only advanced parental control for TV programming specifically mentioned (by definition) by Congress in the Child Safe Viewing Act of 2007 when Congress instructed the Commission to consider advanced parental control technology that "can filter language based upon information in closed captioning."
1. Congress recognized that this technology would be easy to implement and cost effective since it uses the existing closed captions data infrastructure,
 2. Congress recognized that this technology has been proven to function in the real-world with proven demand in the marketplace,
 3. Congress recognized that this technology addresses the number one complaint of the public regarding video entertainment; foul language, thereby complementing the V-chip locking and blocking technology. A Time Magazine poll found that more viewers are offended by bad language on TV than by violence, nudity or drug abuse. Time took the pulse of the public when it comes to cursing and sexual language on TV:
 - Is there too much on television? 58%;
 - Are you personally offended by it? 42%;
 - Should government ban it from TV? 41%
- (See <http://www.time.com/time/magazine/article/0,9171,1039718,00.html>).

For further proof, the Commission could examine its own complaint records and see that foul language is a major concern for families. Foul language filtering technology is a proven solution that has been used in millions of U.S. households.

4. By singling out foul language filtering technology, Congress recognized that other advanced parental control technologies for TV programming may be too burdensome on the VPOs and VPDs/VPPs, since all others would require the building of an entirely new data infrastructure.
5. Congress recognized that foul language filtering technology would become public domain in the near future as the associated patents expire in 2017.

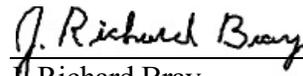
- D. Should the Commission decide not to follow through with Congress' intentions, the Commission should at least make rules that would make closed captioning data accessible by third-party devices and software in real-time with the same quality, accuracy and timing of the closed captions, as it exists on the video content from the VPOs, and make the VPOs accountable to include accurate, uncensored and audio synchronized closed captions on non-live programming.

V. CONCLUSION

The Commission has a responsibility to honor Congress' intent in the CVAA and the prior related Telecommunications Act of 1996 and Child Safe Viewing Act of 2007. Rulemaking needs to consider all of these pieces of legislation; otherwise, the Commission may violate Congress' intent specified in prior legislation. Congress has made its intent perfectly clear that both closed captions and advanced parental controls for TV programming should be easily accessible and free to the public by its passage of the Telecommunications Act of 1996. Congress made its intent perfectly clear when it instructed the Commission to make sure both mandated closed captions and mandated advance parental controls are updated to keep up with advances in technology and video development. Congress made its intent perfectly clear in the Child Safe Viewing Act that it wanted technology that "can filter language based upon information in closed captioning" considered by the Commission. Foul language filtering technology is the only market proven advanced parental control technology for TV programming that utilizes an existing data infrastructure; closed captions. Actions taken by VPDs/VPPs over the past few years on HD television and Internet video have denied foul language filtering external devices and software from having access to accurate and timely closed caption data. Without

appropriate rulemaking, foul language filtering technology will soon become obsolete, the millions of devices already in American households will become inoperable, and no foul language filtering option will even be possible in the marketplace for the protection of American children in the future. Congress should be very careful not to make rules that would prevent the marketplace from providing advanced parental controls for TV programming to the public. Without appropriate rulemaking that honors Congress' intent, families will be left with only one choice for parental controls; the 1996 V-chip type locking and blocking features provided directly by the VPDs/VPPs – basically an automated ON/OFF switch. TVGuardian implores the Commission not to make rules that would *eliminate* the ability for families to sit down in their own homes and watch TV shows and movies in comfort, because they know, even if there's a potential presence of pervasive offensive language, it will automatically be muted by advanced parental controls; but instead, make rules honoring Congress' intent by issuing a mandate guaranteeing the public has easy access and free use of this important tool.

Respectfully submitted,



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